CLAIMS

What is claimed is:

1. A blood pump having an impeller comprising at least two vascular connection devices for a tubeless connection of the pump to a blood vessel outside the heart.

2. The blood pump of claim 1, wherein the tubeless connection devices are of the type selected from the group consisting of a suture ring and a vascular prosthesis.

3. The blood pump of claim 1, wherein the impeller is housed inside a pump housing and the connection devices are disposed at the housing.

4. The blood pump of claim 1, wherein the length of the pump housing is lass than twice that of its diameter.

5. The blood pump of claim 4, wherein the length is less than 1.5 times the diameter of the housing.

6. The blood pump of claim 1, wherein the length of each of the vascular connection devices is shorter than the diameter of the pump housing.

7. The blood pump of claim 3, further comprising a motor for driving the impeller and wherein webs are provided between an outer casing of the housing and the motor.

8. The blood pump of claim 8, wherein the webs are configured as vanes.

9. The blood pump of claim 7, wherein the motor is firmly held to the outer mantel of the housing by the webs.

10. The blood pump of claim 7, wherein the webs are configured for housing metal cables or metal pins for transmission of electric current.

11. The blood pump of claim 7, wherein an area bordered by the motor and the casing, is a flow area with a diameter which is 50% of a free flow area at one end of the pump housing.

12. The blood pump of claim 11, wherein the diameter of the free flow area is at least 80% of the free flow diameter at the one end of the pump housing.

13. The blood pump of claim 3, wherein the pump is provided with two pump housings and two motors.

14. The blood pump of claim 14, further comprising an adaptable connection device between the two pump housings.

15. The blood pump of claim 14, wherein the impellers can be driven in opposite direction.

16. The blood pump of claim 3, further comprising an auxiliary motor disposed at the housing, said auxiliary motor provided with a mass driven in opposite direction to the impeller.

17. The blood pump of claim 3, wherein the housing is provided with an attachment device for attachment of the pump to tissue.

18. The blood pump of claim 17, wherein the attachment device is configured for attachment to a rib cage.

19. A method for a tubeless vascular implant of a blood pump with an impeller comprising the steps of providing a blood pump with connection devices, preparing vascular tissue for the implant, inserting the pump into location and connecting the pump directly to the vascular tissue with a connecting device selected from the group consisting of suture rings and vascular prosthesis.

20. The method of claim 19, wherein the pump connection devices are sutured to the vascular tissue.